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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,794	05/04/2001	Susie J. Wee	10014738-1	8836

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EXAMINER	
HOFFMAN, BRANDON S	
ART UNIT	**PAPER NUMBER**
2136	

DATE MAILED: 12/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PRG

Office Action Summary	Application No.	Applicant(s)	
	09/849,794	WEE ET AL.	
	Examiner	Art Unit	
	Brandon Hoffman	2171	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-49 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-49 is/are rejected.

7)☒ Claim(s) 5-8,19,20,25,26 and 28 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 04 May 2001 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because on lines 8 and 9, the phrase "are disclosed" should be removed according to the above suggestion for the abstract. Correction is required. See MPEP § 608.01(b).

Claims 5-8, 19, 20, 25, 26, and 28 are objected to because of the following informalities:

- Regarding claim 5, on line 28, "d1)" should be removed from the claim.
- Regarding claims 7 and 8, these claims are dependent upon claim 5, and therefore inherit its deficiencies.
- Regarding claim 28, the claim cites being dependent upon claim 5, but Examiner believes it to be of best placement on claim 25. Examiner treats claim 28 as being dependent upon claim 25 for all future actions.

- The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

  Misnumbered claim 5 shall be renumbered to 6.

  Misnumbered claim 6 shall be renumbered to 5.

  Misnumbered claim 19 shall be renumbered to 20.

  Misnumbered claim 20 shall be renumbered to 19.

  Misnumbered claim 25 shall be renumbered to 26.

  Misnumbered claim 26 shall be renumbered to 25.

  Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 2, 4-8, 12-14, 17-22, 24-28, 32-37, 39-42, and 44-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamanaka (U.S. Patent No. 6,603,883) in view of Uz (U.S. Patent No. 6,351,538).

Regarding claims 1, 13, and 21, Hamanaka teaches a secure and scalable encoding method/system for encoding data, said secure and scalable encoding system comprised of:

- A segmenter (fig. 1, ref. num 107 & 108),
    - Said segmenter adapted to receive data and segment said data into corresponding regions (col. 8, lines 12-15 & 47-51);
- A scalable encoder coupled to said segmenter (fig. 1, ref. num 109 & 110),
    - Said scalable encoder adapted to encode at least one of said regions into scalable data (col. 8, lines 15-18 & 51-55); and
- A packetizer coupled to said progressive encrypter (fig. 1, ref num 111),
    - Said packetizer adapted to packetize said progressively encrypted scalable data (col. 8, lines 56-63).

Hamanaka does not teach a progressive encrypter coupled to said scalable encoder, said progressive encrypter adapted to progressively encrypt said scalable data to generate progressively encrypted scalable data.

Uz teaches a progressive encrypter coupled to said scalable encoder (fig. 1, ref. num 130), said progressive encrypter adapted to progressively encrypt said scalable data to generate progressively encrypted scalable data (col. 5, line 56 through col. 6, line 31).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine a progressive encrypter, as taught by Uz, to the method/system of Hamanaka. It would have been obvious to one of ordinary skill in the art to combine a progressive encrypter, as taught by Uz, to the method/system of Hamanaka because encrypting data before transmitting it to a receiver provides security against eavesdroppers from pirating the data.

This new method/system would now make a secure scalable encoder, such that the data, after being scalably encoded, would be encrypted to ensure security while being transmitted from one place to another.

Regarding claim 21, specifically, the combination of Hamanaka/Uz teaches a computer readable medium having computer readable code stored thereon for causing a device to perform the secure and scalable encoding steps (see col. 18, lines 52-64 of Hamanaka).

Regarding claims 2, 14, and 22, the combination of Hamanaka/Uz teaches wherein said data is comprised of video frame data (fig. 1, ref. num 102 & 104 suggests that the data is supplied – and stored – in frames).

Regarding claims 4, 17, and 24, the combination of Hamanaka/Uz teaches wherein said scalable encoder is further adapted to encode said at least one of said regions into said scalable data and into header data (see col. 8, lines 56-61 of Hamanaka) wherein said header data provides information corresponding to said scalable data (see col. 8, lines 61-62 of Hamanaka).

Regarding claims 5, 18, and 25, the combination of Hamanaka/Uz teaches wherein said progressive encrypter is further adapted to encrypt said header data to provide encrypted header data (see col. 9, line 66 through col. 10, line 2 of Uz, this suggests that the header data was encrypted by the encrypter of the Hamanaka/Uz combination).

Regarding claims 6, 19, and 26, the combination of Hamanaka/Uz teaches wherein said packetizer is further adapted to packetize said progressively encrypted scalable data and said header data (see fig. 1, reg. Num 130 of Uz and see col. 8, lines 56-63 of Hamanaka).

Regarding claims 7, 20, and 27, the combination of Hamanaka/Uz teaches wherein said packetizer is further adapted to packetize said progressively encrypted scalable data and said encrypted header data (see col. 8, lines 56-63 of Hamanaka and see col. 9, line 66 through col. 10, line 2 of Uz suggests that the header data was encrypted before transmission).

Regarding claims 8 and 28, the combination of Hamanaka/Uz teaches wherein said data is selected from the group comprising: video data, audio data, image data, graphic data, and web page data (see col. 11, lines 66-67 of Hamanaka).

Regarding claims 12 and 32, the combination of Hamanaka/Uz teaches steps b) through e) for only a portion of said data received at step a) (see col. 10, line 65 through col. 11, line 22 of Hamanaka shows in some cases the data is not spatially, temporally, or SNR scalably coded).

Regarding claims 33, 39, and 44, Hamanaka teaches a decoding system for decoding data encoded using a secure and scalable encoding system, said decoding system comprised of:

- A decoder coupled to said decrypter (col. 11, lines 30-31 & 42-45),
    - Said decoder adapted to decode said scalably encoded regions to provide decoded regions (col. 11, lines 30-31 & 42-45); and
- An assembler coupled to said decoder (col. 11, lines 30-31 & 42-45)

- Said assembler adapted to assemble said decoded regions to provide data (col. 11, lines 30-31 & 42-45).

Hamanaka does not teach a decrypter, said decrypter adapted to receive a packet containing progressively encrypted and scalably encoded data and decrypt said packet to provide scalably encoded regions.

Uz teaches a decrypter (fig. 1, ref. num 212), said decrypter adapted to receive a packet containing progressively encrypted and scalably encoded data and decrypt said packet to provide scalably encoded regions (col. 9, lines 5-44).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine a decrypter, as taught by Uz, to the method/system of Hamanaka. It would have been obvious to one of ordinary skill in the art to combine a decrypter, as taught by Uz, to the method/system of Hamanaka because decrypting data after receiving it from a transmitter restores the secure data to an unsecured form that can then be decoded.

This new method/system would now make a secure scalable decoder, such that the data, after being received from a transmitter, would be decrypted to restore the secure encrypted data that was transmitted from a transmitter to the receiver.

Regarding claim 44, specifically, the combination of Hamanaka/Uz teaches a computer readable medium having computer readable code stored thereon for causing a device to decode data which has been securely and scalably encoded (see col. 18, lines 52-64 of Hamanaka).

Regarding claims 34, 40, and 45, the combination of Hamanaka/Uz teaches said decrypter is further adapted to receive a packet containing said progressively encrypted and scalably encoded data (see fig. 1, ref. num 212 of Uz) and also including unencrypted header data wherein said unencrypted header data provides information corresponding to said scalably encoded data (see col. 13, lines 23-30 of Hamanaka).

Regarding claims 35, 36, 41, 46, and 47, the combination of Hamanaka/Uz teaches wherein said decrypter is further adapted to receive a packet containing said progressively encrypted and scalably encoded data (see fig. 1, ref. num 212 of Uz) and also including encrypted header data wherein said encrypted header data provides information corresponding to said scalably encoded data (see col. 9, line 66 through col. 10, line 2 of Uz), said decrypter further adapted to decrypt said encrypted header (the Examiner believes it to be inherent that the encrypted header data is decrypted by the decrypter of Uz based on the reasoning that the encrypted header data is read by Uz. In order to read – and understand – encrypted data of any sort, it first has to be decrypted.).

Regarding claims 37, 42, and 48, the combination of Hamanaka/Uz teaches wherein said assembler is further adapted to assemble said decoded regions to provide video frame data (see 11, lines 30-31 & 42-45 of Hamanaka).

Claims 3, 15, 16, 23, 38, 43, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamanaka (U.S. Patent No. 6,603,883) as modified by Uz (U.S. Patent No. 6,351,538) and further in view of Yamaguchi et al. (U.S. Patent No. 5,818,531).

Regarding claims 3, 15, 16, and 23, the combination of Hamanaka/Uz teaches all the limitations of claims 1, 13, and 21, respectively, above. However, Hamanaka/Uz does not teach further comprising a video prediction unit coupled to said segmenter, said video prediction unit adapted to generate prediction error video data and provide said prediction error data to said segmenter.

Yamaguchi et al. teaches further comprising a video prediction unit coupled to said segmenter (fig. 1, ref. num 200 & 201 and fig 3A), said video prediction unit adapted to generate prediction error video data and provide said prediction error data to said segmenter (col. 14, lines 37-58).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine a video prediction unit for predicting errors, as taught

by Yamaguchi et al., to the method/system of Hamanaka/Uz. It would have been obvious to combine a video prediction unit for predicting errors, as taught by Yamaguchi et al. to the method/system of Hamanaka/Uz because the video prediction unit provides the encoder potential errors that can be resolved before being transmitted.

Regarding claims 38, 43, and 49, the combination of Hamanaka/Uz teaches all the limitations of claims 33, 39, and 44, respectively, above. However, Hamanaka/Uz does not teach wherein said assembler is further adapted to assemble said decoded regions to provide prediction error video data for use by a video prediction unit.

Yamaguchi et al. teaches wherein said assembler is further adapted to assemble said decoded regions to provide prediction error video data for use by a video prediction unit (fig. 4, ref. num 202 & 203 and col. 14, lines 37-58).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine a video prediction unit for predicting errors from an assembler, as taught by Yamaguchi et al., to the method/system of Hamanaka/Uz. It would have been obvious to combine a video prediction unit for predicting errors from an assembler, as taught by Yamaguchi et al. to the method/system of Hamanaka/Uz because the video prediction unit is provided the data that contained potential errors from the encoder.

Claims 9-11 and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamanaka (U.S. Patent No. 6,603,883) as modified by Uz (U.S. Patent No. 6,351,538) and further in view of Van der Auwera et al. (U.S. Patent No. 6,532,265).

Regarding claims 9-11 and 29-31, the combination of Hamanaka/Uz teaches all the limitations of claims 1 and 21, respectively, above. However, Hamanaka/Uz does not teach segmenting said data into corresponding rectangular regions, non-rectangular regions, and overlapping regions.

Van der Auwera et al. teaches segmenting said data into corresponding rectangular regions, non-rectangular regions, and overlapping regions (col. 2, lines 20-28).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine segmenting the data into rectangular, non-rectangular, and overlapping regions, as taught by Van der Auwera et al., to the method/system of Hamanaka/Uz. It would have been obvious to combine segmenting the data into rectangular, non-rectangular, and overlapping regions, as taught by Van der Auwera et al. to the method/system of Hamanaka/Uz because the segments being divided into different regions allows smaller segmenting values for easier encoding and the realization of a real-time system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon Hoffman whose telephone number is 703-305-4662. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Brandon Hoffman

BH
12/17/03

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